1992 Index to Volume 54 of *The American Biology Teacher*

This index includes everything published in *The American Biology Teacher* during 1992 (Volume 54) except filler material. Book reviews in the Title Index are listed with the names of the book author(s) in parentheses; AV reviews list the name of the producer in parentheses. In both cases, the reviewers are listed in the Author Index. Initial articles (i.e. a, an, the) are not considered in alphabetization of the index. The index is alphabetical word-by-word. For example, "Educational" would follow "Education theory." Page numbers indicate the first page of the article or department in which the entries appear.

Entries are in three categories: Subject, Title and Author. All entries include one of the following key codes:

A = Articles
B = Biology Today
C = Computer Center
D = Other Departments
E = Editorial
F = Feature
H = How-To-Do-It/Tested Techniques
L = Letters
P = Projector Center
R = Book Reviews
T = Teacher-To-Teacher
V = AV Reviews

SUBJECTS

Addictions....2:126R
AIDS education....1:13A
Animal behavior....1:33H, 2:126R, 3:179B, 5;306B, 5:314R
Animal rights....1:60R, 2:70L, 3:134L, 6:330L, 8:454L
Anthropology....1:59R, 2:125R
Antivenin....6:333A
Ants....7:439B
Archaeology....5:303T, 6:324E
Arterial blood pressure....2:14H
Autoradiography....1:26H
Bacteria....2:108H, 3:158A, 4:226H
Biodiversity....5:306B, 5:312V
Biology education....1:16A, 2:72A, 2:76A, 2:93H, 2:102H, 3:137A, 4:212A, 4:242H, 5:269A, 5:261L, 6:365H, 7:395A, 8:464A
Biology software....4:248C, 5:310C, 6:380C
Botanics....5:291H, 5:313R
Cancer....8:458A, 8:476D
Carcinogenesis....371H
Cardiac cycle....8:500P
Cats....1:29H
The cell cycle....1:26H
Cells....3:161A, 4:200A, 6:381V
Chironomidae....4:236H
Collages....2:102H
Composting....7:420H
Computers....1:56C, 8:491H
Cooperative learning....2:84A, 4:218A
Creationism....6:328L
Crustaceans....8:502V
Critical thinking....1:4E, 6:327L, 7:432H, 8:464A
Darwin....3:192R
Developmental biology....4:254R
Dinosaurs....4:255R
Dissection....2:70L, 3:171H, 3:134L, 8:454L, 8:502V
DNA....2:87A, 2:93H, 4:255R, 5:284A, 6:368H
Ecology....1:19A, 1:53B, 2:80A, 5:306B, 6:381V, 7:420H
Empirical analysis....1:33H
Energy....3:179B
Environment....1:37H, 1:58V, 1:59R, 2:127V, 3:132E, 6:327L, 7:447R, 8:488H
Environmental sampling....1:37H
Enzymes....3:191R, 4:254R, 8:482H
Evolution....1:19A, 1:41H, 2:125R, 3:192R, 4:244B, 6:362H, 6:329L, 7:406A, 7:413D, 7:441B
Evolutionary ecology....1:19A
Explication....3:177H
Fibonacci numbers....2:68E
Flagella....2:108H
Fossil pollen dating....1:41H
Fossils....1:41H
Gene mapping....2:87A, 5:261L
Genetics....1:29H, 2:87A, 2:103H, 3:184V, 3:187C, 4:248C, 5:312V, 7:426H, 7:447R, 8:476D, 8:482H
Geology....5:276A, 8:504R
Global warming....1:59R, 2:127V
Great Plains....1:53B
Greenhouse effect....1:59R
Hardy-Weinberg Principle....2:103H
Herbivory....7:416H
Homeostasis....7:440B, 7:446V
Human chromosomes....2:87A, 2:93H
Human ecology....1:53B
Hybridization....5:312V
Immune system....2:127V
Karyotypes....4:248C
Leonardo Pisano....2:68E
Literature & science....2:80A, 6:327L, 6:375B, 7:447R
Longhorns....1:52B
Mathematics....2:68E
Meiosis....5:312V, 8:470A
Metal probe meters....7:436H
Microbiology....2:108H, 2:112H, 3:158A, 3:191R
Midges....4:236H
Mitosis....8:470A
Molecular biology....2:87A
NABT....1:11L, 2:119B
Natural history....1:16A, 1:52B
Natural selection....4:230H
Nature....1:16A, 2:80A, 5:286A, 5:314R, 6:339A, 8:504R
Neurochemistry....6:357D
Numbers....2:68E
Osmosis....8:486H
Paleontology....2:125R, 5:295H
Paranormal....1:4E, 7:392L
Physiology....8:496B
Plant taxonomy....5:314R
Plate tectonics....8:504R
Pollen....1:41H, 3:168H, 3:173H
Pollination....6:382V
Population ecology....5:310C, 6:373H
Population genetics....2:103H
Propagation....5:286A
Proteins....2:93H, 3:184V, 3:191R
Radiation....4:196E, 6:33L
Research....7:401A
RNA....3:187C
Science education....1:4E, 1:16A, 2:72A, 2:84A, 3:137A, 3:153A, 3:177H, 5:260E, 6:324E, 6:349A, 6:371H, 6:383R, 7:446V, 7:448R, 8:452E
Scientific method....5:303T
Science technology....5:313R, 6:364H
Serum sickness....6:333A
Snakebites....6:333A
Soils....4:199L, 7:436H
Spectrophotometry....4:222H
Teaching techniques....2:93H, 4:205A, 4:212A, 4:218A, 5:263A, 5:261L, 6:344A, 8:470A, 8:491H
Test-generating software....1:56C, 2:123C, 6:379C
Topoisomerase I....6:368H
Toxicity....8:488H
Tropical forests....1:58V
Viruses....6:383R
Volcanos....5:276A
Women scientists....2:70L
Writing....2:119B
Yeast....7:426H

TITLES

Articles

AIDS Education in the Science Classroom....1:13A
Books for the Amateur Naturalist: Sources of Experiments & Activities for Outdoor Biology Classes....1:16A
Biological Bafflers, Discrepant Data, Fascinating Facts & Quizzical Quandaries....5:263A

Biological Studies on a Live Volcano....5:276A
Cancer Education: Relieving the Silence & Fear....8:458A
Concept Mapping with a Cooperative Learning Flavor....4:218A
Down to Earth Biology, A Planetary Perspective for the Biology Curriculum....2:76A
The Essential Elements of Cooperative Learning....2:84A
From the Kiss of a Cobra: A Sidelong View of Snakebite, Antivenin & Serum Sickness....6:333A
Gary Snyder's Poetry & Ecological Science....2:80A
A Generic Biology Textbook Review: It Is Time to Stop Placing Band-Aids on Our Biology Curricula....2:72A
High School Biology Teacher's Image of Subject Matter: An Exploratory Study....4:212A
Human Health & Science, A Model for an STS High School Biology Course....7:395A
An Interdisciplinary Model for Teaching Evolutionary Ecology....1:19A
Islands of Chestnut Trees....5:286A
Material Cycles in Nature, A New Approach to Teaching Photosynthesis in Junior High School....6:339A
Medium-Induced Antagonistic Behavior in Staphylococcus aureus....3:158A
The Nature of Scientific Thinking As Reflected by the Work of Biologists & by Biology Textbooks....3:137A
A Paper-&-Pencil Strategy for Teaching Mitosis & Meiosis, Diagnosing Learning Problems & Predicting Examination Performance....8:470A
A Plain English Map of the Human Chromosomes....2:87A
Professional Resources Recommended by Biology Presidential Science Honorees....6:344A
Recombinant DNA for Teachers....5:284A
The Role of Research in Undergraduate Instruction....7:401A
Stirring the Biology Teaching Pot with Discrepant Events....4:205A
An STS Approach to Human Biology Instruction Affects Achievement & Attitudes of Elementary Science Majors....6:349A
Teaching Critical Thinking Skills in the Biology & Environmental Science Classrooms....8:464A
Textbook Errors & Misconceptions in Biology: Cell Energetics....3:161A
Textbook Errors & Misconceptions in Biology: Cell Physiology....4:200A
A Theoretical Basis for Evaluating Wildlife-Related Education Programs....3:153A
A Vision of Biology Education for the 21st Century....5:269A
Wilberforce, Huxley & the Use of History in Teaching About Evolution....7:406A

AV Reviews

The Anatomy of the Fetal Pig (Carolina Biological Supply Company)....8:502V
The Anatomy of the Crayfish (Carolina Biological Supply Company)....8:502V
Battle for the Redwoods: The Forest Through the Trees (Isam Film Group)....1:58V
Depleting the Gene Bank (Films for the Humanities and Sciences, Inc.)....5:312V
Discovering the Cell (National Geographic Society)....6:381V
Ecology of an Estuary: America's Inland Sea/ Preserving the Water (Great Plains National ITV Library)....6:381V
The Gene (Hawkhill Associates, Inc.)....3:184V
Global Warming--Future Quest (Hawkhill Associates)....2:127V
One Earth: An Environmental Overview and Earth's Endangered Environments (National Geographic Society)....2:127V
Mechanisms of Stability & Change (Optical Data Corporation)....7:446V
Meiosis: The Key to Genetic Diversity (Human Relations Media)....5:312V
Our Threatened Heritage (National Wildlife Federation)....1:58V
Pollination Biology: Sexual Encounters of the Floral Kind (Videodiscovery, Inc.)....6:382V
Translating the Code: Protein Synthesis (Human Relations Media, Inc.)....3:184V
Windows on Science, Life Science (Optical Data Corporation)....7:446V
Your Immune System (National Geographic Society)....2:127V

Biology Today

Energy Crisis....3:179B
Lives in Science....6:375B
Remembering Elton....5:306B
Three Friends (J. Frank Dobie, Roy Bedichek, Walter Prescott Webb)....1:52B
Ten Years....2:119B
Traveling Around Physiology....8:496B
A World of Ants....7:439B
Well Worth the Effort....4:244B

Book Reviews

1001 Things Everyone Should Know About Science (James Trefil)....7:448R
The Addictions Handbook (Virginia Alvin & Robert Silverstein)....2:126R
America's Academic Future: A Report of the Presidential Young Investigator Colloquium on U.S. Engineering, Mathematics and Science Education for the Year 2010 and Beyond (The National Science Foundation)....6:383R
The Animal Rights Controversy (Laurence Pringle)....1:60R
Animal Rights vs. Nature (Walter E. Howard)....1:60R
Animals Have Rights, Too. A Primer for Parents, Teachers and Young People (Michael W. Fox)....1:60R
Botany: 49 More Science Fair Projects (Robert L. Bonnet & G. Daniel Keen)....5:314R
Crisis in the Atmosphere: The Greenhouse Factor (Ed Phillips)....1:59R
Cultural Anthropology: Understanding Ourselves and Others (Richley Crapo)....1:59R
Death, Sex, and Fertility: Population Regulation in Preindustrial and Developing Societies (M. Harris & E. Ross)....2:125R
Developmental Biology (Scott F. Gilbert)....4:254R
Discovering Enzymes (David Dressler & Huntington Potter)....3:191R
DNA Science: A First Course in Recombinant DNA Technology (David A. Micklos & Greg A. Freyer)....4:255R
Dynamics of Dinosaurs & Other Extinct Giants (R. McNeil Alexander)....4:255R
E for Environment. An Annotated Bibliography of Children's Books with Environmental Themes (Patti K. Sinclair)....7:447R
Embryology, an Introduction to Developmental Biology....4:254R
The Facts on File Dictionary of Environmental Science (L. Harold Stevenson & Bruce Wyman)....7:447R
Fire Under the Sea (Joseph Cone)....8:504R
A First Dictionary of Cultural Literacy: What Our Children Need To Know (E.D. Hirsch, Jr.)....7:447R
Food Hoarding in Animals (Stephen B. Vander Wall)....2:126R
Global Warming: Assessing the Greenhouse Threat (Laurence Pringle)....1:59R
The Greenhouse Trap: What We're Doing to the Atmosphere and How We Can Slow Global Warming (Francesca Lyman)....1:59R
Handling Laboratory Microorganisms (Charles Penn)....3:191R
The Innocent Assassins (B. Kurten)....2:125R
The Moon by Whale Light: and Other Adventures Among Bats, Penguins, Crocodilians, and Whales (Diane A. Ackerman)....5:314R
On The Frontiers of Science: How Scientists See Our Future (Contributing Editors: Nigel Calder & John Newell)....5:313R
Plant Taxonomy: The Systematic Evaluation of Comparative Data (Tod F. Stuessy)....5:314R
Plantworks: A Wild Plant Cookbook, Field Guide and Activity Book for the Novice and Naturalist (Karen Shanberg & Stan Tekiela)....8:504R
Practical Genetics (R. N. Jones & G. K.

Richards).....7:447R
A Reunion of Trees. The Discovery of Exotic Plants and Their Introduction into North American & European Landscapes (Stephen A. Spongberg).....5:313R
Viruses (Arnold J. Levine).....6:383R
A Zoologist Looks at Humankind (Adolf Portmann).....3:192R

Computer Center
Building the Perfect Test-Generating Software.....1:56C
Deciphering the Genetic Code.....3:187C
Open Access.....7:443C
A Population Biology Software Review.....5:310C
Review of Microtest (Delta Software, Inc.).....2:123C
Some Odds & Ends To Begin a New Year.....6:379C

Editorial
Changing Our Attitude About the Environment.....3:132E
Debunking the Paranormal: We Should Teach Critical Thinking as a Necessity for Living, Not Just as a Tool for Science.....1:4E
Digging Into a New School Year.....6:324E
Excuses & Complacency Will Not Help Our Schools.....8:452E
Helping Ourselves.....5:260E
More "Bloppers".....7:388E
The Numbers of Life.....2:68E
Our Fear of Radiation.....4:196E

How-To-Do-It/Tested Techniques
Autoradiography & the Cell Cycle.....1:26H
Bacterial Genome Analysis by Field Inversion Agarose Gel Electrophoresis.....4:226H
Biology As Collage.....2:102H
Building a Botanical Outdoor Learning Center.....5:291H
Chemical Pollutant Toxicity Determined with a Fungal Assay.....8:488H
A Classroom Exercise in Empirical Analysis: Gender Differences in Book-Carrying Behavior.....1:33H
Concepts to Questions: Teaching Carcinogenesis Using the Holistic Method.....6:371H
Dating Fossil Pollen: A Simulation.....1:41H
Demonstrating Bacterial Flagella.....2:108H
Developing A Biology Content Course for a Mid-Career Mathematics & Science Teacher Preparation Program.....6:365H
The Effect of Strenuous Exercise on Blood Pressure.....2:114H
Environmental Sampling with an Inexpensive Electric Pump.....1:37H
Evaluating Metal Probe Meters for Soil Testing.....7:436H
Genetics of the Domestic Cat, A Lab Exercise.....1:29H
The Graphing Detective: An Exercise in Critical Reading, Experimental Design & Data Analysis.....7:432H
A Hands-On Simulation of Natural Selection in an Imaginary Organism, Platysoma apoda.....4:230H
Herbivory, Predation & Biological Control.....7:416H
High Intensity Discharge Microscope Illuminators--A Welcomed Technology...6:364H
How To Improve the Quality of the Environment in the Undergraduate Dissection Laboratory.....3:171H
Introducing Students to Ethnobotany..1:46H
Introducing Students to Population Genetics & the Hardy-Weinberg Principle.....2:103H
A Model for Incorporating & Evaluating Use of a Computer Laboratory Simulation in the Nonmajors Biology Course.....8:491H
Osmosis Revisited.....8:486H
Pellet Puzzlers.....5:295H
Population Blocks.....6:373H
Rap Music as a Method for Review.....4:242H
Rapid Germination of Pollen In Vitro.....3:168H
Rearing & Maintaining Midge Cultures (Chironomus tentans) for Laboratory Studies.....4:236H
A Simple Alternative to the IMViC Test in Microbiology.....2:112H
A Simplified Experimental System for Observing Pollen Tube Growth in Styles.....3:173H
Species Identity of Commercial Stocks of Paramecium in the U.S.....5:299H
Strike It Rich with Classroom Compost.....7:420H
Teaching Biology Around Themes: Teach Proteins & DNA Together.....2:93H
Teaching the Evolution of the Angiosperm Carpel.....6:362H
Teaching a Mendelian Codominant Drosophila melanogaster Trait with Alcohol Dehydrogenase Allozyme Polymorphisms.....8:482H
Teaching Principles of Spectrophotometry: A Demonstration Device Using an Apple IIe Computer.....4:222H
The Use of Topoisomerase I as a Teaching Tool for Understanding Cellular DNA Structure & Activity.....6:368H
Using Explication to Improve Vocabulary Acquisition.....3:177H
Yeast: A Research Organism for Teaching Genetics.....7:426H

Letters
Animal Rights Issue Revisited.....6:330L
Correcting Misconceptions.....4:198L
Creationism Versus Evolution Continues to Spark Debate.....6:329L
Defending Dissection.....8:454L
Doublespeak Decried.....4:198L
Highlight Women Scientists.....2:70L
Improve Laboratory Conditions With Neutralizing Agent.....6:327L
NABT Policy 'a Breath of Fresh Air'....3:134L
New Course Narrows Gap Between Science & the Humanities.....6:327L
Oppose PETA School Campaign.....2:70L
Paranormal Parley.....7:392L
Paying the Environmental Consequences.....6:329L
Recent Data Takes Human Gene Mapping A Step Further.....5:261L
Saving the American Chestnut from Endothia Spores.....6:327L
Significance of Soils Noted.....4:199L
Speciesism: A Perversion of Biology, Not a Principle.....3:134L
Study Finds Different Students Tote Books Differently.....6:327L
"Teaching Biology Around Themes" Draws Questions from Students.....5:261L
Two Stress Necessity for Critical Thinking.....6:327L
Validating Our Fear of Radiation.....6:332L

Other Departments
A Conversation with Michael Bishop & Harold Varmus.....8:476D
A Conversation with Candace Pert...6:357D
A Conversation with Ernst Mayr.....7:412D
Guidelines for Authors.....1:62D
1991 Honorary Member/Distinguished Service Award.....1:64D
Report of the President--1991.....1:11D

Projector Center
Let's Have a Hand for the Cardiac Cycle.....8:500P

Teacher-To-Teacher
Students Dig This New Summer Course.....5:303T

AUTHORS

Alexander, Steve.....3:191R
Allard, David W.....8:486H
Babich, H.....8:488H
Bedichek, Roy.....1:52B
Belzer, Bill.....8:500P
Benathen, Isaiah A.....2:112H, 3:158A
Bicak, Charles J.....1:60R
Biggs, Alton L.....4:255R, 6:324E
Block, Tim.....2:127V
Bogdanske, Don.....2:125R
Brickman, Bobbi L.....2:127V
Browning, Mark.....3:187C
Brynie, Faith Hickman.....4:199L

Buttles, Sunny....8:491H
Campbell, Neil A....6:357D, 7:412D, 8:476D
Canington, Deborah....7:416H
Cardinale, Loretta A....3:177H
Chiras, Daniel D....8:464A
Clewis, Beth....1:16A
Cliburn, Joseph W....8:500P
Cole, Thomas A....5:299H
Coletta, John....1:19A
Colverson, Peter....5:313R
Cvancara, Victor....2:114H
Daniel, Paul M....2:126R
Dobie, J. Frank....1:52B
Dodson, Carolyn....5:313R
Donahue, Cynthia....5:303T
Duhrkopf, Richard....1:56C, 2:123C, 6:379C, 7:443C
Duvall, James G., III....5:284A
Emsley, Michael....1:59R, 2:125R, 3:191R, 4:254R, 5:313R, 6:383R, 7:447R
Estes, James R....1:33H
Fall, Bruce....4:230H
Fifield, Steve....4:230H
Finnen, R....4:226H
Flannery, Maura C....1:52B, 2:119B, 3:179B, 4:244B, 5:306B, 6:375B, 7:439B, 8:496B
Fortner, Roseanne W....2:76A
Fox, K.D....8:488H
Gauld, Colin....7:406A
Gibaldi, Arnold....1:46H
Gibbs, Al....3:137A
Govindarajan, Girish....4:205A, 5:269A, 6:382V
Graham, Pat....8:454L
Granberry, Royce L....8:486H
Hart, J. L....1:60R
Hays, Rachel....1:58V, 2:127V, 3:184V, 4:252V, 5:312V, 6:381V, 7:446V, 8:502V
Heckman, Robert....8:482H
Hein, John....4:236H
Hershey, David R....2:70L, 5:314R, 6:383R, 7:436H
Hollingshead, Barbara....5:291H
Hoots, Rita A....5:295H, 5:314R
Horn, Toby M....4:255R
Huppert, Jehuda....7:395A
Jablon, Paul C....2:72A
Jensen, Jerry....4:248C
Johnson, Willis H....5:299H
Jones, C. Weldon....1:26H
Jones, Linda L. Cronin....7:420H
Karcher, Susan J....3:192R, 4:254R, 6:383R
Kearney, Christopher....1:58V
Kendler, Barry S....1:46H, 7:392L
Koritz, Helen G....1:46H
Langley, Sierra S....7:447R
Laurence, J. C....5:286A
Lawson, Anton E....3:137A
Lazarowitz, Reuven....7:395A
Mahadeva, Madhu N....4:236H
Manney, Monta L....7:426H
Manney, Thomas R....7:426H
McClintock, James I....2:80A
McDowell, Glenda....5:291H
McInerney, Joseph D....1:11D, 2:70L
Mertens, Thomas R....2:103H, 8:470A
Moore, Randy....1:4E, 2:68E, 3:132E, 4:196E, 5:260E, 7:388E, 7:392L, 8:452E
Morgan, J. Mark....3:153A
Morrison, Adrian R....3:134L
Moss, Robert....8:458A
Motten, Alexander F....3:173H
Mousseau, Timothy A....5:310C
Murphy, Terence M....7:416H
Nickels, Martin....3:192R
Oates, Karen K....2:126R
O'Brien, Thomas....5:263A
Offner, Susan....2:87A, 2:93H
Okebukola, Peter Akinsola....4:218A
Orlans, F. Barbara....3:134L
Ott, Margaret G....5:312V
Pechenik, Jan A....7:432H
Porter, John R....2:108H
Quackenbush, Roger E....1:29H
Rode, Geralynne A....4:242H
Rosenberg, Herbert I....3:171H
Salay, Joanne....2:102H
Schaub, David....1:58V
Schiel, Joseph B., Jr....2:127V
Schimpf, David J....3:168H
Schrock, John Richard....8:454L
Schwartz, Esta R....5:261L
Seago, James L., Jr....7:401A
Seely, Jeffery K....1:37H
Sehra, Ruchir....5:299H
Sheridan, Philip....1:41H
Shinkle, James R....4:222H
Simchoni, Devorah....7:395A
Skog, Laurence E....5:314R
Smith, Robert A....2:108H
Speece, Susan P....1:13A
Speer, Henry L....4:198L
Stacy, Sue C....4:222H
Stanlaw, James....1:59R, 2:126R
Stanley, Melissa....4:255R
Storey, Richard D....3:161A, 4:200A
Surrarrer, T. C....5:286A
Svoboda, Felicia....5:312V
Tamir, Pinchas....4:212A
Tashiro, Jay Shiro....7:432H
Thomulka, Kenneth W....2:108H
Trevors, J. T....4:226H
Vestal, Bedford M....1:33H
Walker, Douglas E....7:416H
Walker, Julie O....8:470A
Watson, Scott B....2:84A
Webb, Ina Claire....6:381V
Webb, Walter Prescott....1:52B
Weitkamp, Wendy....4:199L
Woodring, Jennifer....6:381V
Wright, Emmett L....4:205A, 5:269A
Yarrington, Bryon P....7:448R
Zipko, Stephen J....5:276A

Index to Advertisers

Benjamin Cummings....456
Brown University....494
Cargille Laboratories....474, 481
Carolina Biological Supply Company....cover 4
Connecticut Valley Biological....451
Copp Clark Pitman Ltd....462
EDVOTEK, Incorporated....cover 2
Gustavus Adolphus College....481
Kendall/Hunt Publishing Company....cover 3
Lane Science Equipment Corporation....463
Laserpoint....462
Media Design Associates....469
Percival Manufacturing....485
Videodiscovery....475